DECODE MEDICINE

A Modern Guide Book For Beginners

LEARN

HEAL

GROW

AGZAMBEK TYNNAR

INTRODUCTION

Welcome to Deode Medicine, which is a modrern beginners guide to understanding medical languages. This book is created to make complext world of medical terms clear and fun for everyone.

Medical terminology is like a s.ecret code doctors uses to communicate between each others. and once you learn about how these codes work, everything is gonna be completely understandble for you.

Inside this book you will find simple explanations for the most commonly used terms and their structures, short examples and even quizzes to test if you reaky undertood all the topics.

Medicine is not just about treating people's illnesses, it is about learning, healing and growing.

So please grab your curiosity, flip to the next page and start decoding the language of health

— *Agzambek Tynnar*

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COMMON MEDICAL SUFFIXES

The ending that shape the meaning of every term

Suffixes are the small but very powerful parts of medical language.They describe what happens to the body, its used in every medical field, from inflamation to disease and surgery .By mastering suffixes, you can decode hundreds of medical words and understand what doctors mean in just a few seconds.

For example: the suffix **"itis"** always means **inflammatio**,so when you see words like tonsillitis, arthritis or gastritis they all means inflamamation in different part of the body

So if you didnt know the word "suffix" comes from Latin suffixum, meaning "fastened underneath."
That's literally what it does — it sticks to the end of a word to complete its meanin

MOST USED SUFFIXES

Suffix	Meaning	Example	Definition
-itis	Inflammation	Arthritis	Inflammation of a joint
-pathy	Disease or disorder	Neuropathy	Disease of the nerves
-algia	Pain	Neuralgia	Nerve pain
-oma	Tumor, mass	Carcinoma	Cancerous tumor
-megaly	Enlargement	Hepatomegaly	Enlargement of the liver
-penia	Deficiency	Leukopenia	Low white blood cell count
-plasty	Surgical repair	Rhinoplasty	Surgical repair of the nose
-ectomy	Surgical removal	Appendectomy	Surgical removal of the appendix
-otomy	Surgical incision	Tracheotomy	Cutting into the windpipe
-ostomy	Opening (surgically	Colostomy	Surgical opening in the colon
-emia	Blood condition	Anemia	Lack of healthy red blood cells
-lysis	Breakdown/destruction	Hemolysis	Breakdown of red blood cells
-therapy	Treatment	Chemotherapy	Chemical treatment for
-gram	Record or picture	Mammogram	X-ray image of the breast
-scopy	Visual examination	Endoscopy	Viewing inside the body

Macth the meanings with the terms

🧠Try to answer this

1. -megaly
2. -algia
3. -ectomy
4. -emia

A) Pain
B) Enlargement
C) Removal
D) Blood condition

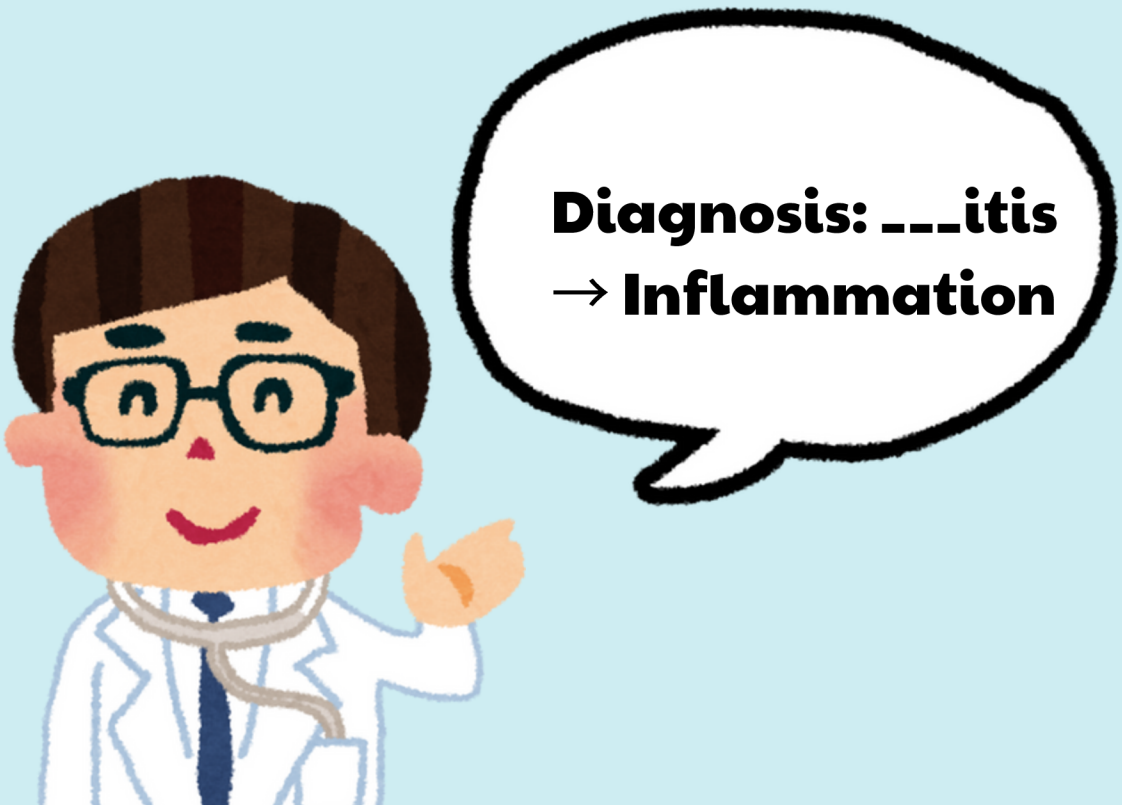
SUFFIXES IN ACTION: FROM WORDS TO REAL LIFE

Now that you know the most common suffixes, let's see how they actually appear in real medical situations. Suffixes are not just random endings they tell stories about what's happening in the body.

Example 1:
Your doctor says "You might have bronchitis."
You instantly know "bronch-" means airway and "-itis" means inflammation — so it's inflammation of the airways.

Example 2:
Someone had an appendectomy.
Even without details, "-ectomy" tells you it was a surgical removal — probably of the appendix.

Example 3:
A blood test shows anemia.
The suffix "-emia" means blood condition, so this word means "problem with the blood."



LET'S TEST WHAT YOU LEARNED

Match each suffix with the correct meaning.

-oma	A. Pain
-itis	B. Tumor
-ectomy	C. Disease
-pathy	D. Surgical removal
-algia	E. Inflammation

guess the meanings of these words

Myalgia_____

Nephritis_____

Osteopathy_____

Appendectomy_____

Dermatoma_____

Use these suffixes to form real medical words

"Hepat-" (liver) + _____

"My-" (muscle) + _____

"Arthr-" (joint) + _____

"Cardi-" (heart) + _____

Complete the sentence with the correct suffix

Inflammation of the lungs is called pneumon_____.

A disease of the nerves is known as neuro_____.

Surgical removal of the appendix is an append_____.

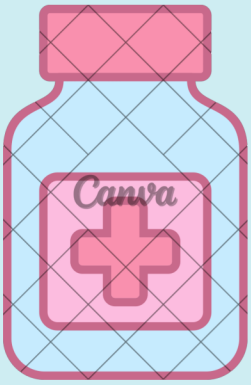
Pain in the joints is called arthr_____.

A tumor in the skin is a dermat_____.

all the answers are in the last page

BREAKING DOWN COMMON PREFIXES

Prefixes can completely change the meaning of a word.Let's check how does the work using real examples.

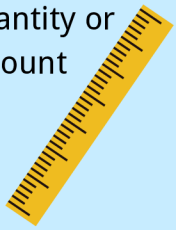


Prefixes help describe location, quantity, or intensity , so once you understand them, you can often guess what a medical word means without needing memorizing it completely.

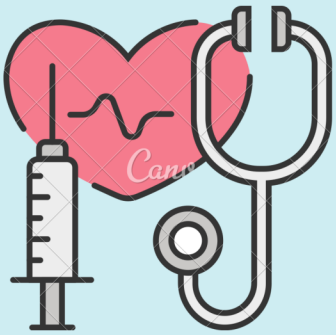
Term	Breakdown	Meaning
Hypoglycemia	Hypo (low) + glyc (sugar) + emia	Low blood sugar
Hypertension	Hyper (high) + tension (pressure)	High blood pressure
Bradycardia	Brady (slow) + cardia (heart)	Abnormally slow heartbeat
Tachypnea	Tachy (fast) + pnea (breathing)	Fast breathing rate
Subcutaneous	Sub (under) + cutaneous (skin)	Beneath the skin
Intravenous	Intra (within) + venous (vein)	Inside a vein
Pericardium	Peri (around) + cardium (heart)	Membrane surrounding the

If you want you can cover up meaning column and see if you can guess what each word means using only the prefix.

Prefixes don't all do the same job. Some of them will tell you where something is, others tell you how much, and some even describe time or direction.Let's look at them by categories.

Type	Prefix	Meaning	Example	Definition
Quantity or Amount 	Hyper-	Over, excessive	Hypertension	High blood pressure
	Hypo-	Under, below	Hypoglycemia	Low blood sugar
	Poly-	Many	Polyuria	Excessive urination
	Oligo-	Few, small	Oliguria	Small amount
Location or Position	Sub-	Under, below	Subcutaneous	Beneath the skin
	Inter-	Between	Intercostal	Between the ribs
	Intra-	Within	Intravenous	Inside a vein
	Peri-	Around	Pericardium	Around the heart
	Epi-	On, upon	Epidermis	Outer layer of skin
Time or Status	Pre-	Before	Prenatal	Before birth
	Post-	After	Postnatal	After birth
	Neo-	New	Neonatal	Newborn period
	Re-	Again	Relapse	Return of disease
Condition or Quality	Dys-	Abnormal, difficult	Dysfunction	Abnormal function
	A- / An-	Without, not	Anemia	Without enough blood cells

Prefixes are the clues for doctors to understand instantly, they tell the story starter of every medical word.



Prefixes are not just something you find in textbooks. Doctors and nurses use them every day to describe real conditions quickly and clearly. By understanding prefixes you can understand most of the words and communication between the doctors in hospital.

EXAMPLES

Hypoglycemia - when blood sugar drops too low, hypo means below normal

Tachypnea - abnormally fast breathing, tachy means fast

Dysfunction - when something is not working properly, dys means abnormal

Polyuria - when someone urinates too often, poly means many or much

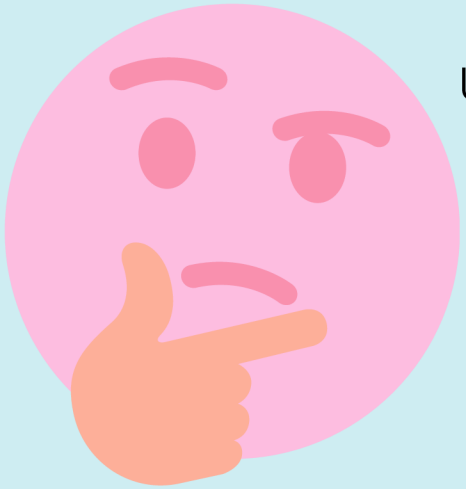
Pericarditis - inflammation around the heart, peri means around

In hospitals, prefixes help professionals communicate faster. Instead of giving long explanations, they use short, precise terms that tell the full story. When a doctor says postoperative care, everyone immediately knows it means care after surgery.

Now it is time to test how well you understand prefixes. Try these short tasks to check your memory and logic

Match the Prefix to Its Meaning

1. Hyper	A. Around
2. Hypo	B. Before
3. Brady	C. Inside
4. Tachy	D. Many
5. Peri	E. Fast
6. Intra	F. Slow
7. Poly	G. Below
8. Pre	H. Above



Use the correct prefix to complete each medical term.

_____cardia means a slow heartbeat.

_____venous means inside a vein.

_____natal means before birth.

_____tension means high blood pressure.

_____glycemia means low blood sugar.

Imagine you are a nurse writing short notes. Complete each sentence with the right prefix.

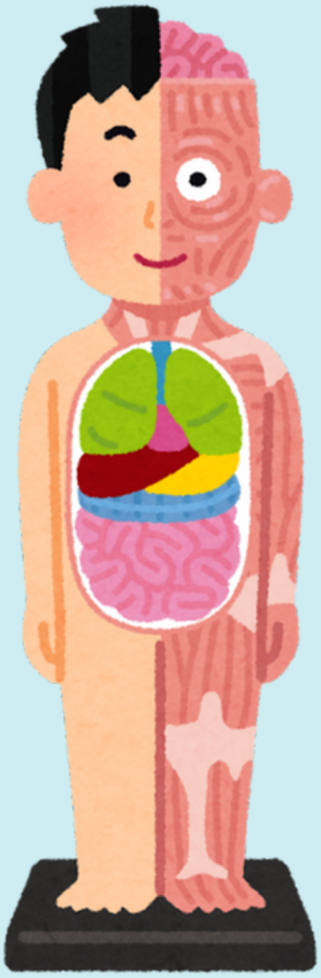
The patient is showing _____pnea after running up the stairs.

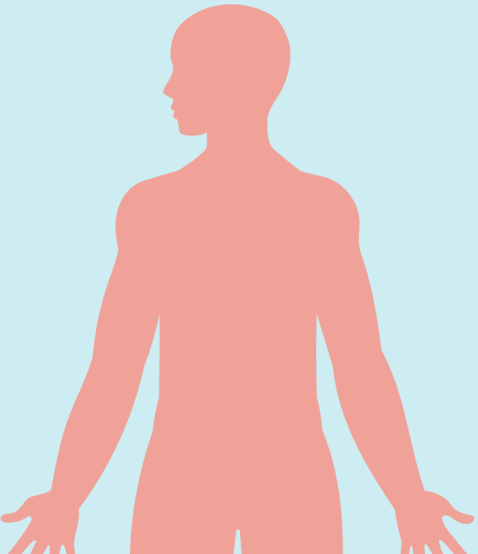
The lab report confirms _____emia caused by iron deficiency.

We will continue _____operative care until the wound heals.

UNDERSTANDING ROOT WORDS

Root words are the main part of most medical terms. They usually describe a body part, organ, or basic function. Prefixes and suffixes attach to the root to change or complete the meaning.
By learning the most common roots, you can understand what a medical word is really talking about — even if it looks long or complex





EXAMPLES

Cardi - heart → Cardiology means the study of the heart

Gastr - stomach → Gastritis means inflammation of the stomach

Neur - nerve → Neurology means the study of the nervous system

Derm - skin → Dermatology means the study of the skin

Oste - bone → Osteoporosis means weak or brittle bones

Hemat - blood → Hematology means the study of blood

Pulmon - lung → Pulmonology means the study of the lungs

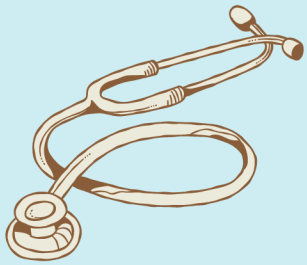
My - muscle → Myopathy means disease of the muscles

Ren - kidney → Renal refers to anything related to the kidney

Cephal - head → Cephalgia means headache

ROOT WORDS

Root words are the heart of every medical term. They tell you which part of the body or system the word is about. Once you understand the most common roots, you can unlock the meaning of thousands of medical words without memorizing them all.

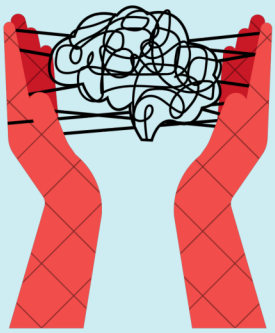


COMMONLY USED ROOT WORDS

Root Word	Meaning	Example Term	Definition
cardi	heart	Cardiology	Study of the heart
derm	skin	Dermatology	Study of the skin
neur	nerve	Neurology	Study of the nervous system
gastr	stomach	Gastritis	Inflammation of the stomach
hepat	liver	Hepatitis	Inflammation of the liver
oste	bone	Osteoporosis	Bone condition with loss of density
pulmon	lung	Pulmonology	Study of the lungs
ren	kidney	Renal failure	Condition affecting the kidneys
hemat	blood	Hematology	Study of blood and its diseases
myo	muscle	Myopathy	Muscle disease
cephal	head	Cephalgia	Headache
cyt	cell	Cytology	Study of cells

BUILDING MEDICAL WORDS

Now you have learned every part of medical terms
A prefix tells where, how much, or how fast.
A root word tells what part of the body it's about.
A suffix tells what's happening to that body part.
When you put them together, you can understand even complex words!



As you can see the words here are very long and complicated, so if a word looks complicated, break it into smaller parts one for prefix, one for root, one for suffix. That's how doctors read it too!

Medical Term	Word Parts	Meaning
Cardiomyopathy	cardio (heart) + myo (muscle) + pathy	Heart muscle disease
Dermatitis	derm (skin) + itis (inflammation)	Skin inflammation
Gastroenterology	gastr (stomach) + enter (intestine) +	Study of stomach and intestines
Neuroplasty	neur (nerve) + plasty (surgical	Surgical repair of a nerve
Osteoarthritis	osteo (bone) + arthr (joint) + itis	Inflammation of bones and joints

YOU ARE A DOCTOR NOW

Let's see how well you can combine prefixes, root words, and suffixes to create real medical terms. Use what you've learned so far think of the meaning first, then form the word!

Section 1 – Match & Build

Use the lists below to create meaningful terms.

Root Words:
Cardi (heart)
Derm (skin)
Neur (nerve)
Gastr (stomach)

Suffixes:
itis (inflammation)
pathy (disease)
plasty (surgical repair)
emia (blood condit

Prefixes:
Hypo (low)
Hyper (high)
Peri (around)
Sub (under)

Section 2 – Challenge Yourself

Create 3 brand new medical terms and write what they mean.

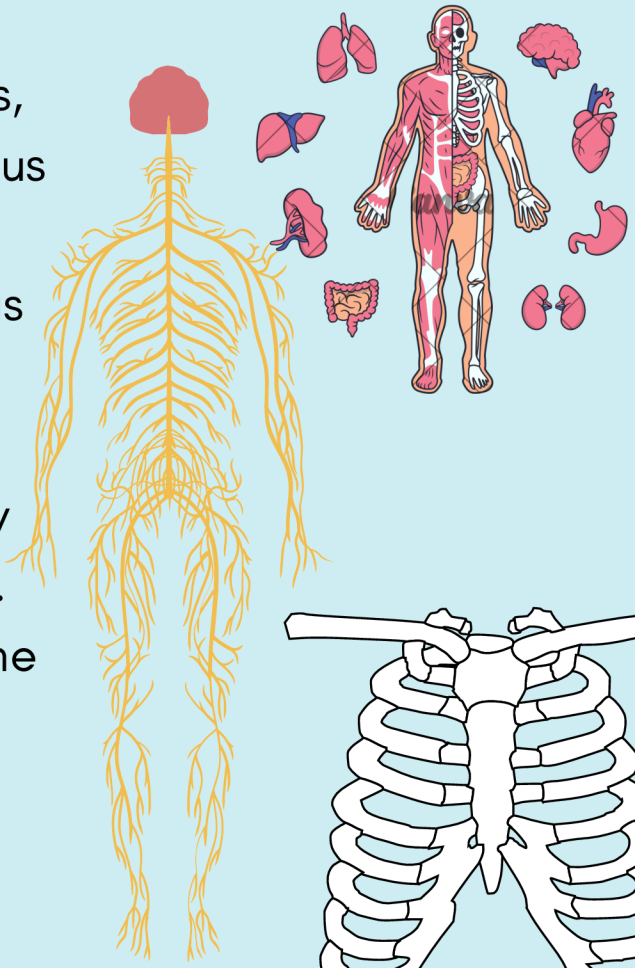
Example:

1_____ → _____

2_____ → _____

3_____ → _____

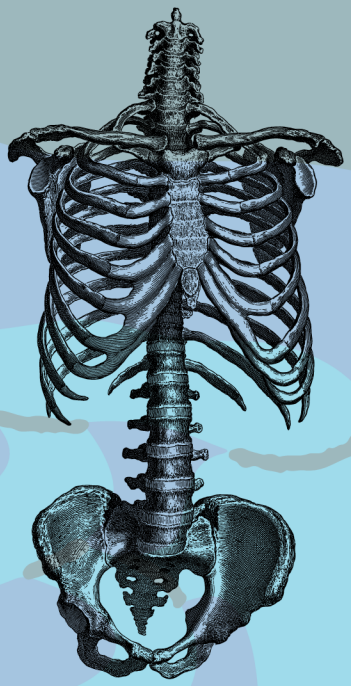
Now that you know the basics prefixes, root words, and suffixes it's time to focus on how these terms appear in real medical systems. Each body system has its own set of medical words that describe how it works, what can go wrong, and how doctors treat it. Every system is like a team inside your body. Some move you, some protect you, some make energy, and some control everything silently. When one system changes, the rest feel it that's why understanding all of them matters.



THE HUMAN BODY SYSTEMS

System	Main Function	Example Term	Meaning
Skeletal	Support and protection	Osteoporosis	Bone weakening
Muscular	Movement and strength	Myopathy	Muscle disease
Circulatory	Blood flow and oxygen	Cardiology	Study of the heart
Respiratory	Breathing and oxygen exchange	Pneumonia	Lung inflammation
Digestive	Breaks down food	Gastritis	Stomach inflammation
Nervous	Sends and receives signals	Neurology	Study of the nerves
Endocrine	Hormone control	Diabetes	Hormone imbalance (insulin)
Urinary	Removes waste	Nephritis	Inflammation of the kidney
Reproductive	Creates life	Gynecology	Study of female reproductive system
Integumentary	Protects body surface	Dermatitis	Skin inflammation

SKELETAL SYSTEM
THE FRAME OF LIFE



Your skeletal system is the foundation that supports your body.

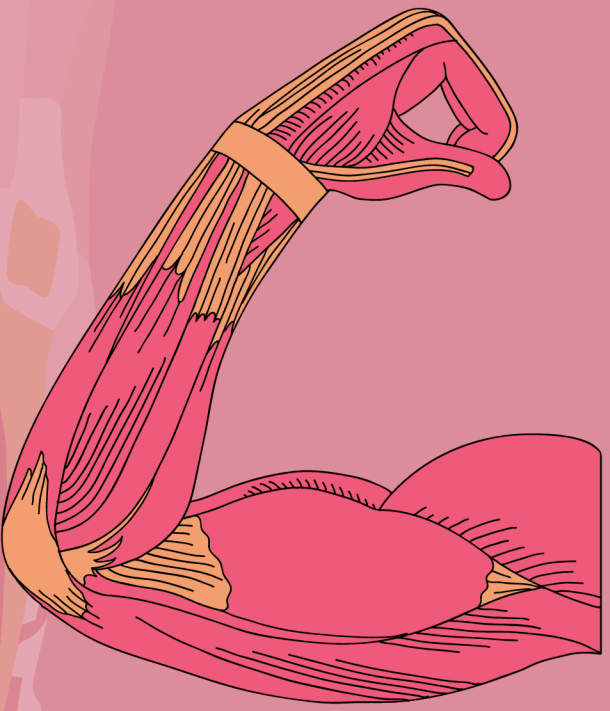
It protects organs, gives structure, and works together with muscles to help you move.

Medical terms related to bones often start with osteo-, arthr-, or chondr-, and they describe conditions, parts, or treatments involving bones and joints.

Term	Breakdown	Meaning
Osteoporosis	Osteo (bone) + porosis (porous)	Condition causing weak bones
Arthritis	Arthr (joint) + itis (inflammation)	Inflammation of the joints
Chondromalacia	Chondro (cartilage) +	Softening of cartilage
Osteotomy	Osteo (bone) + otomy (cutting	Surgical cutting of a bone
Arthroplasty	Arthro (joint) + plasty (repair)	Surgical repair of a joint

MUSCULAR SYSTEM
THE POWER BEHIND EVERY MOVE

Term	Breakdown	Meaning
Myopathy	Myo (muscle) + pathy (disease)	Muscle disorder
Myalgia	My (muscle) + algia (pain)	Muscle pain
Sarcopenia	Sarco (flesh) + penia (deficiency)	Loss of muscle mass
Hemiplegia	Hemi (half) + plegia (paralysis)	Paralysis on one side of the body
Hypertonia	Hyper (high) + tonia (muscle tone)	Increased muscle tension



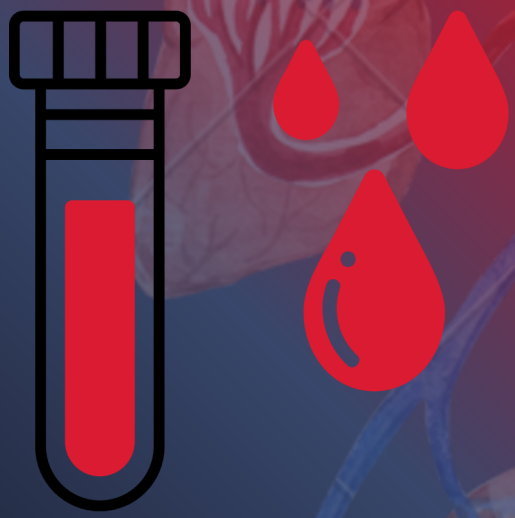
The muscular system works with your bones to help you move, breathe, and even keep your heart beating.

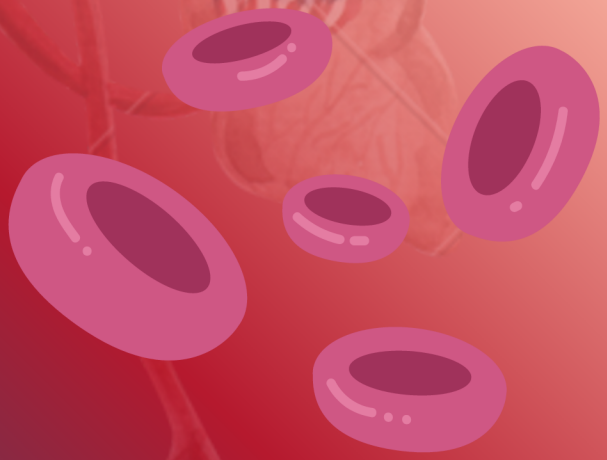
Every motion — from blinking to sprinting — is powered by muscle fibers contracting and relaxing.

Medical terms for muscles often include myo-, sarco-, or suffixes like -paresis and -plegia, which describe muscle conditions or movements.

MUSCULAR SYSTEM
THE POWER BEHIND EVERY MOVE

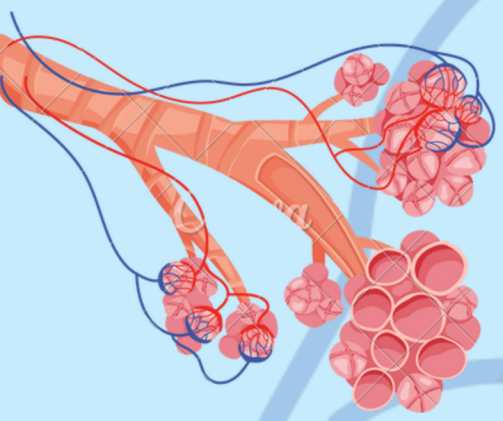
Your circulatory system transports blood, oxygen, and nutrients throughout your body.
It includes your heart, blood, and blood vessels, keeping every organ alive and active.
Medical terms related to this system often use cardi-, angi-, hemo-, or suffixes like -emia and -itis.





Term	Breakdown	Meaning
Cardiomegaly	Cardio (heart) + megaly	Enlargement of the heart
Hematology	Hemat (blood) + logy (study of)	Study of blood
Angioplasty	Angio (vessel) + plasty (repair)	Surgical repair of a blood vessel
Ischemia	Isch (restriction) + emia (blood	Lack of blood supply
Thrombosis	Thromb (clot) + osis (condition)	Formation of a blood clot

RESPIRATORY SYSTEM
THE BREATH OF LIFE

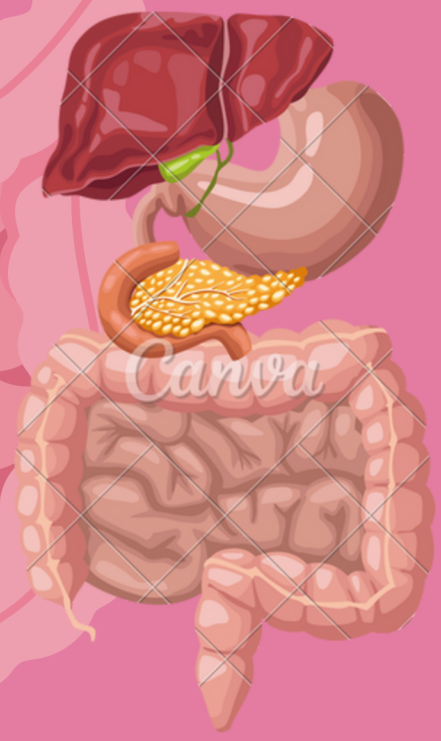


The respiratory system brings oxygen into your body and removes carbon dioxide.
It includes the lungs, trachea, bronchi, and diaphragm.
Medical terms here often use pneumo-, broncho-, laryngo-, or suffixes like -pnea (breathing) and -itis (inflammation).

Term	Breakdown	Meaning
Pneumonia	Pneumo (lung) + nia (condition)	Infection that inflames air sacs in the lungs
Bronchitis	Bronch (airway) + itis (inflammation)	Inflammation of the bronchial tubes
Laryngoscopy	Laryngo (voice box) + scopy (view)	Viewing the larynx with a scope
Dyspnea	Dys (difficult) + pnea (breathing)	Difficulty breathing
Apnea	A (without) + pnea (breathing)	Temporary stop in breathing

DIGESTIVE SYSTEM

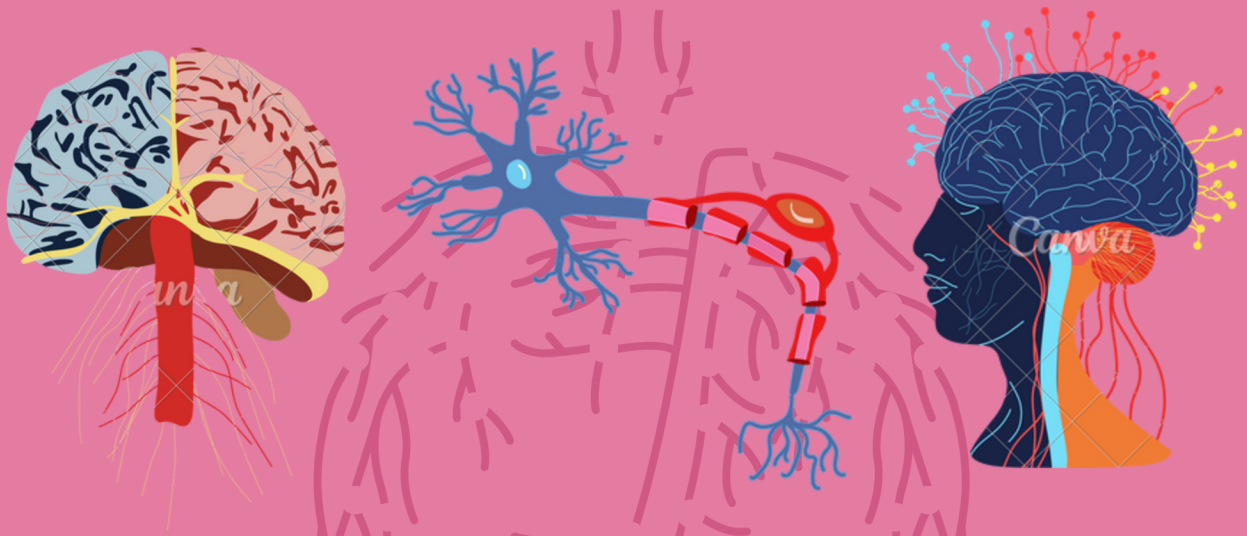
Term	Breakdown	Meaning
Gastroenteritis	Gastro (stomach) + entero (intestine) +	Inflammation of the stomach and
Hepatitis	Hepat (liver) + itis (inflammation)	Inflammation of the liver
Colitis	Col (colon) + itis (inflammation)	Inflammation of the colon
Gastralgia	Gastr (stomach) + algia (pain)	Stomach pain
Appendectomy	Append (appendix) + ectomy (removal)	Surgical removal of the appendix
Dyspepsia	Dys (bad) + pepsia (digestion)	Indigestion



The digestive system's job is to turn the food we eat into the energy our body needs. Understanding its medical terms can help you see how everything from your mouth to your intestines connects.

NERVOUS SYSTEM

THE BODYS COMMAND CENTER EVERY MOVE STARTS HERE



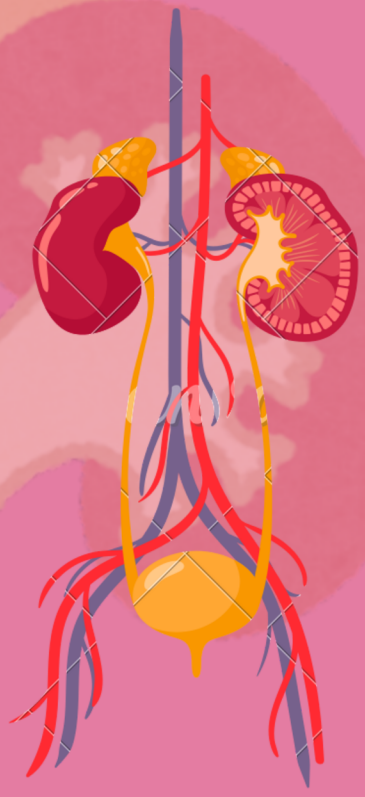
The nervous system is the body's ultimate command center — every movement, thought, and reaction starts here. It sends electrical messages through billions of nerve cells called neurons, helping your brain talk to every part of your body almost instantly. Whether you're running, laughing, or remembering something from years ago, it's all your nervous system at work.

Term	Breakdown	Meaning
Neurology	Neur (nerve) + logy (study of)	Study of the nervous system
Encephalitis	Encephal (brain) + itis (inflammation)	Inflammation of the brain
Neuralgia	Neur (nerve) + algia (pain)	Nerve pain
Neurogenic	Neur (nerve) + genic (originating from)	Caused by or starting in the
Psychosis	Psych (mind) + osis (condition)	A severe mental condition affecting
Cerebrospinal	Cerebro (brain) + spinal (spine)	Relating to brain and spinal cord

URINARY SYSTEM
THE BODY'S NATURAL FILTER

The urinary system is your body's built-in cleaning service. Its main job is to remove waste and balance fluids by filtering the blood. Every single day, your kidneys clean out toxins, extra salts, and water — turning them into urine, which is later stored in the bladder and released through the urethra.

The system includes the kidneys, ureters, bladder, and urethra — each working together like a recycling team. The kidneys act as filters, the ureters as pipes, the bladder as a temporary storage tank, and the urethra as the exit route.



Term	Breakdown	Meaning
Nephrology	Nephr (kidney) + logy (study of)	Study of kidney functions and
Cystitis	Cyst (bladder) + itis (inflammation)	Inflammation of the bladder
Urethritis	Urethr (urethra) + itis (inflammation)	Inflammation of the urethra
Hematuria	Hemat (blood) + uria (urine	Blood present in the urine
Polyuria	Poly (many) + uria (urine)	Producing too much urine

EXAM!

FINAL EXAM

Task 1: Match the Meanings (5 pts)

-itis	A. Blood condition
-ectomy	B. Inflammation
-algia	C. Pain
-emia	D. Disease
-pathy	E. Surgical removal

Task 2 :Write the meanings terms.(10 pts)

- Arthritis
- Cardiomegaly
- Hemolysis
- Neuropathy
- Hypoglycemia
- Appendectomy
- Tachypnea
- Rhinoplasty
- Leukopenia
- Nephritis

Task 3 : Decode the Word (10 pts)

Write what each term literally means

Hypodermic =

Cardiologist =

Osteopathy =

Endoscopy =

Polyuria =

Hepatitis =

Pericardium =

Hyperglycemia =

Tracheotomy =

Dermatology =

Task 4: Real Life Scenarios (10 pts)

Apply your knowledge like a real doctor.

Your patient has “bradycardia.” What’s happening?

Your friend says they have “dermatitis.” What’s inflamed?

You read a chart saying “intravenous injection.” What does that mean?

A patient is diagnosed with “osteoporosis.” What part of the body is affected?

A report says “hepatomegaly.” What does this condition describe?

ANSWER KEYS

Suffix Quiz (Page 5)
-megaly → Enlargement
-algia → Pain
-ectomy → Removal
-emia → Blood condition

Suffix Match (Page 7)
-oma → Tumor
-itis → Inflammation
-ectomy → Surgical removal
-pathy → Disease
-algia → Pain
Word Formation
Hepat- + itis = Hepatitis
My- + algia = Myalgia
Arthr- + itis = Arthritis
Cardi- + ology = Cardiology
Guess the Meanings
Myalgia → Muscle pain
Nephritis → Inflammation of the kidney
Osteopathy → Bone disease
Appendectomy → Surgical removal of the appendix
Dermatoma → Skin tumor
Complete the Sentences
Pneumonitis
Neuropathy
Appendectomy
Arthralgia
Dermatoma

Prefix Quiz (Page 11)
Hyper → Above
Hypo → Below
Brady → Slow
Tachy → Fast
Peri → Around
Intra → Inside
Poly → Many
Pre → Before
Complete Each Medical Term
Bradycardia
Intravenous
Prenatal
Hypertension
Hypoglycemia
Complete the Sentences
Tachypnea
Hypoemia (or Anemia)
Postoperative

Root Word Practice (Page 15)
Match the Meanings:
Osteo → Bone
Myo → Muscle
Cardio → Heart
Neur → Nerve
Derm → Skin
Hepat → Liver
Nephro → Kidney
Gastro → Stomach

Final Exam (Page 24)
Task 1: Match the Meanings
-itis → Inflammation
-ectomy → Surgical removal
-algia → Pain
-emia → Blood condition
-pathy → Disease
Task 2: Write the Meaning of Each Term
Arthritis → Inflammation of a joint
Cardiomegaly → Enlargement of the heart
Hemolysis → Breakdown of red blood cells
Neuropathy → Nerve disease or disorder
Hypoglycemia → Low blood sugar
Appendectomy → Surgical removal of the appendix
Tachypnea → Rapid breathing
Rhinoplasty → Surgical repair of the nose
Leukopenia → Low white blood cell count
Nephritis → Inflammation of the kidney
Task 3: Decode the Word
Hypodermic → Under the skin
Cardiologist → Heart specialist
Osteopathy → Bone disease or treatment
Endoscopy → Viewing inside the body
Polyuria → Excessive urination
Hepatitis → Inflammation of the liver
Pericardium → Membrane around the heart
Hyperglycemia → High blood sugar
Tracheotomy → Surgical cut into the windpipe
Dermatology → Study of the skin
Task 4: Real Life Scenarios
Bradycardia → Slow heartbeat
Dermatitis → Inflammation of the skin
Intravenous injection → Injection inside a vein
Osteoporosis → Weakening or thinning of the bones
Hepatomegaly → Enlargement of the liver

Complete the Terms:
Osteitis → Inflammation of the bone
Myalgia → Muscle pain
Cardiology → Study of the heart
Neuralgia → Nerve pain
Dermatitis → Inflammation of the skin
Hepatitis → Inflammation of the liver
Nephritis → Inflammation of the kidney
Gastroenteritis → Inflammation of the stomach and intestines
Challenge: Combine the correct roots, prefixes, or suffixes.
Osteopathy → Bone disease
Cardiomegaly → Enlargement of the heart
Neuropathy → Nerve disorder
Gastroplasty → Surgical repair of the stomach
Hepatology → Study of the liver

REFERENCES

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